

A catalyst system and a process for the bulk addition polymerization of polycyclic olefins, such as norbornene, methylnorbornene, ethylnorbornene, butylnorbornene or hexylnorbornene, 1,2,3,4,4a,5,8,8a-octahydro-1,4:5,8-dimethanonaphthalene, 5,5'-(1,2-ethanediyl)bisbicyclo[2.2.1]hept-2-ene, and 1,4,4a,4b,5,8,8a,8b-octahydro-1,4:5,8-dimethanobiphenylene are disclosed. The catalyst includes an organonickel or organopalladium transition metal procatalyst and an activator compound. Polymerization can be carried out in a reaction injection molding process to yield thermoplastic and thermoset molded polymeric articles possessing high glass transition temperatures.